

## **OPPORTUNISTIC BEAMFORMING AND SCHEDULING OF USERS IN A COMMUNICATION SYSTEM**

### **ABSTRACT OF THE DISCLOSURE**

In a method of determining a beam to be generated for a user, a user may be selected from a user population based on a parameter that is tracked for each user in the user population, and a beam preferred by the selected user may be determined. The preferred beam may be generated and used by a base station to transmit a pilot signal to the user population. Each user of the user population responds to the pilot signal. The base station may run a scheduling algorithm and schedule a user based on feedback received from all the users in the user population, and information may be transmitted to the scheduled user using the preferred beam.